

**REMARKS**

Reconsideration of the present application is respectfully requested.

Applicants again request that the Examiner consider the IDS filed on August 10, 2004 subsequent to issuance of the present office action. The Examiner should note that, while JP-A-2000-373249 was listed in the form PTO-1449 that accompanied the IDS, JP-A-2000-373249 is actually a corresponding Japanese application that also claims priority from the Japanese priority document (JP 11-347582) of the present application. A partial translation of an Office Action issued by the Japanese Patent Office in connection with JP-A-2000-373249 was submitted with the August 10<sup>th</sup> IDS and not the application itself. Therefore, the Examiner should consider the partial translation of the Japanese Office Action.

Applicants note that the Examiner has returned another copy of the form PTO-1449 that was submitted with the IDS filed on February 12, 2004. However, despite a request in the previous amendment filed on December 7, 2004, the Examiner has still not acknowledged receipt, or returned an initialed copy of, the form PTO-1449 submitted with the IDS that was timely filed on August 10, 2004. For the Examiner's convenience, a copy of the August 10<sup>th</sup> IDS and form PTO-1449, along with a copy of the OIPE date-stamped postcard and the cited reference, are attached hereto. It is respectfully requested that the Examiner make any clarifying remarks on the PTO-1449, and initial and return a copy of the form PTO-1449 as proof that the listed reference has been considered.

Applicants request that the Examiner contact the undersigned if the Examiner believes that Applicants should submit a revised form PTO-1449.

The Examiner has also created ambiguity regarding the status of certain of the claims. Specifically, the PTOL-326 Office Action Summary sheet indicates that claims 1-22, 24, 30-34, and 36-40 are allowed and that claims 23 and 41-43 are rejected. However, on page 1 of the Detailed Action, the Examiner indicates that “Applicant’s arguments with respect to claims 1-22, 24 and 30-34 have been considered but are now moot in view of the new ground(s) of rejection.” The Examiner then goes on to indicate that claims 26, 27 and 35 are rejected, even though these claims were not indicated as being either allowed or rejected on the PTOL-326. In addition, the Examiner indicates that claim 24 would be allowable if rewritten in independent form on page 8 of the Final Rejection, that it is allowed on the PTOL-326 (even though it is a dependent claim), and that it is rejected in the above noted remarks on page 1 of the Detailed Action. Withdrawal of the finality of the present rejection so that the status of these claims may be clarified for the record is respectfully requested.

Claim 23 has been amended to correct a noted discrepancy in the claim language to conform the claim language to that which is the invention and not in response to any of the outstanding prior art rejections. Specifically, the term “external device” has been amended to rewriting device in the last line of claim 23. Support for this amendment may be found, for example, in FIG. 2, as the recited predetermined processing, which enables the ECU 10 to determine the legitimacy of the rewriting device 20, corresponds to B4, B7 and B8 and is based on the function “f” from the control center 30.

Claim 23 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz and Koelle. This rejection is respectfully traversed.

Schmitz has been discussed in detail in the Amendment filed on December 7, 2004. As noted by Applicants in the Remarks section of the previous Amendment, and as admitted by the Examiner on page 3 of the present Final Rejection, Schmitz does not teach processing means for checking a match between an electronic control unit and an external device by using access information received from the rewriting device.

The Examiner attempts to cure the above noted deficiency in the teaching of Schmitz by citing Koelle and asserting that Koelle at col. 6, lines 24-34, "...teaches a computer for checking a match between an electronic control unit and an external device by using access information received from the external device to ensure that the rewriting device is authorized to [sic] the control memory."

As discussed in the Remarks section of the previous Amendment, Koelle describes an engine control device 10 to which an external communications device 24 can be connected to reprogram a flash EPROM memory 14 in the engine control device 10 (see col. 4, lines 18-24). At col. 6, lines 24-34 (the portion of Koelle to which the Examiner specifically refers), a microcomputer 11 in the engine control device 10 waits to receive a specific programming enabling code from the external communications device 24. If the received code does not correspond to a code stored in or calculated by the engine control device 10, the program Prog for reprogramming the memory 14 is called up.

However, as with Schmitz, Koelle is devoid of any teaching or suggestion of a rewriting device (such as the rewriting device 20 in the present invention) that checks a match between an electronic control unit and an external device (such as the control center 30 in the present invention) by using access information received from the

rewriting device. In fact, Koelle is completely silent with respect to a control center, much less a control center that determines whether the external communication device 24 (which apparently the Examiner asserts is analogous to the rewriting device of the present invention) is legitimate by comparing an association relationship between ID information associated with the rewriting device and associated information related to the ID information with its own stored association relationship. Rather, the portion of Koelle that the Examiner asserts teaches verification of the legitimacy of a rewriting tool (col. 6, lines 24-34) actually relates to an engine control device 10 that determines if a rewriting program (Prog) stored locally in ROM 16 should be called up based on an enabling code received from the external communications device 24.

In other words, Koelle merely describes an external communications device 24 (located for example in a specialist workshop of a motor vehicle manufacturer) for programming a memory 14 of an engine control device 10. See col. 4, lines 18-36. The external communications device 24 corresponds at best to the rewriting device 20. If for example the external communications device 24 is stolen, it would be possible for an unauthorized user to rewrite the control information of the engine control device 10 by transmitting a rewrite enabling code from the external communications device 24 to the engine control device 10.

In contrast, when the control center 30 of the present invention determines the rewriting device 20 to be legitimate (upon confirming that ID information and associated information, such as a telephone number from which the rewriting device 20 contacts the control center 30), the function *f* is transmitted from the control center 30 to the rewriting device 20 (B2, B3 in Fig. 2). Therefore, even when the rewriting device 20 or

information inside the rewriting device 20 is stolen, it is not possible to rewrite the control information of the ECUs 11 – 14, as the access information for accessing the ECUs 11-14 is not stored in the rewriting device 20, but rather must be retrieved from the control center 30 only after the control center 30 compares and confirms that the ID and associated information from the rewriting device match corresponding information stored in the control center. See bottom page 22 – top page 23.

In summary, the combination of Schmitz and Koelle does not render the present invention as recited in claim 23 obvious due to the above noted deficiencies in their combined teachings. Therefore, as the Examiner has failed to establish a *prima facie* case of obviousness, it is respectfully requested that the Examiner's rejection of claim 23, as well as claims 41 and 42 that depend therefrom, under 35 USC 103(a) be withdrawn.

Claim 26 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz and Berra. This rejection is respectfully traversed.

The Examiner admits that Schmitz neither teaches nor suggests that a rewriting device converts data received from an electronic control unit based on access information received from a control center, and transmits the converted data to the electronic control unit to enable the electronic control unit to determine whether the rewriting device is legitimate. The Examiner therefore cites Berra in an attempt to cure the deficient teaching of Schmitz.

Specifically, the Examiner asserts that Berra "teaches a rewriting device receiving encrypted data from the control center based on access information (col. 4, lines 37-50). Berra also inherently teaches the rewriting device converting the received [sic] in order to transmit data over SCI to the control unit (col. 4, lines 20-23)."

However, even assuming *arguendo* the above is correct, the Examiner does not assert that the rewriting device transmits the converted data to the electronic control unit to enable the electronic control unit to determine whether the rewriting device is legitimate as is recited in the last paragraph of claim 26. The Examiner does not make this assertion because Berra is devoid of any such teaching.

Specifically, Berra relates to reprogramming of a vehicle computer by secure communication between an engine control unit 12 and an authorized database 30 through use of an external interface tool 26 that is connectable to the engine control unit 12. Col. 4, lines 37-50 describe how encrypted data is sent from the database 30 to the engine control unit 12 through the external interface tool 26 and is deciphered at the engine control unit 12. See also col. 5, lines 51-65.

However, Berra is silent with respect to checking and verifying the legitimacy of the external interface tool 26, and does not teach or suggest converting data from the engine control unit 12 based on access information received from the database 30 and transmitting the converted data to the engine control unit 12 to enable the engine control unit 12 to determine whether the external interface tool 26 is legitimate. Also, as with Schmitz, Berra neither teaches nor suggests storage at a control center of access information (such as, for example, the function *f* as discussed at the bottom of page 17 in the Amendment filed on December 7, 2004) that is required by the rewriting device for rewriting purposes as recited in claim 26. Rather, in Berra, all encryption of data to be transmitted occurs at the database 30, and all deciphering of encrypted data occurs at the engine control unit 12. The external interface tool 26 merely provides a means by which the database 30 and the engine control unit 12 can communicate with one another and

plays no part in ensuring secure and legitimate transmission of reprogramming data to the engine control unit 12. There is no means by which the legitimacy of the external interface tool 26 is checked. See, for example, col. 4, lines 25-36, col. 6, lines 1-3 and col. 7, lines 47-57.

Therefore, even if the teaching of Schmitz was modified by the teaching of Berra as asserted by the Examiner, the resulting combination still would not teach the present invention as recited in claim 26.

As the combination of Schmitz and Berra are deficient in their respective teachings when viewed either singly or in combination, the Examiner has failed to establish a *prima facie* case of obviousness. Therefore, it is respectfully requested that the Examiner's rejection of claim 26 under 35 USC 103(a) be withdrawn.

Claim 27 has been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz, Berra and Henderson.

Claim 27 depends from claim 26, which is allowable over the cited art for the above discussed reasons. Therefore, claim 27 is allowable over the cited art at least for the reasons given above for claim 26.

Claims 35 and 43 have been rejected under 35 USC 103(a) as being obvious in view of the combination of Schmitz and Lesesky. This rejection is respectfully traversed.

Initially, it is noted that the Examiner has repeated *verbatim* his rejection of claim 35 from the Office Action mailed on July 7, 2004, apparently without considering Applicants' remarks on pages 25-26 directed to Schmitz and Lesesky in the Amendment filed on December 7, 2004. The Examiner has not provided any reasoning as to why

Applicants' previous remarks were insufficient, thereby making it impossible for Applicants to further prosecution regarding claim 35.

**The above situation is particularly curious in view of the fact that the Examiner's reasons for rejection in the December 7<sup>th</sup> Office Action and in the present Final Rejection based on Schmitz and Lesesky also correspond exactly to the Examiner's reasons for rejecting claim 35 based on Schmitz and Lesesky on pages 16 and 17 in the April 14, 2003 Office Action.** Applicants note that the rejection of claim 35 was overcome by the Amendment filed on August 14, 2003, as the Examiner withdrew the above rejection of claim 35 based on Schmitz and Lesesky and issued a Notice of Allowance on December 3, 2003.

The Examiner withdrew the Notice of Allowance subsequent to Applicants' filing of a Request for Continued Examination, a Supplemental Amendment and a Supplemental IDS on February 12, 2004. Even though Applicants' Supplemental Amendment did not include amendments to claim 35, and therefore claim 35 remained in its previously allowed form, the Examiner, without explanation, reinstated his earlier rejection of claim 35 based on the combination of Schmitz and Lesesky and on the same reasoning used to initially reject claim 35 in the April 14, 2003 Office Action. The continues to reject claim 35 based on this previously overcome reasoning.

**In view of the Examiner's inconsistent treatment of claim 35, it is respectfully requested that the Examiner set forth his reasoning in detail in the next communication as to why claim 35 stands rejected, even though Applicants previously overcame the rejection of claim 35 based on Schmitz and Lesesky.**



Further, the finality of the present Office Action is premature, as a clear issue between Applicants and the Examiner as to what Schmitz and Lesesky disclose has not yet been developed. (See MPEP 706.07 Rev. 2, May 2004).

Applicants therefore respectfully request that the finality of the present Office Action be withdrawn and that the Examiner consider Applicants' earlier remarks (which are again provided below). If assuming *arguendo* the Examiner disagrees with the remarks and corresponding claim amendments made in the December 7<sup>th</sup> Amendment, Applicants specifically request that the Examiner provide written assertions as to why Applicants' assertions are deficient for the sake of furthering prosecution.

Lesesky relates to a communications system 2000 for communicating the status of one or more subsystems 100 in a trailer 20 of a tractor/trailer vehicle system to the tractor 10. The Examiner asserts that Lesesky cures the deficiencies of Schmitz by teaching the use of a check sum to verify the integrity or identification of information. However, as described at col. 17 beginning at line 50, the trailer communications module 2020 includes protocol specific transceivers 2015 for receiving signals from subsystems 100 and for reconvertng the signals to digital signals, and a microprocessor 2040 including a self-diagnostic means 2060. As noted at col. 19 beginning at line 62, the on-board self-diagnostic means 2060 analyzes these signals to determine *inter alia* if the check sum associated with the signals is incorrect.

However, as with Schmitz, Lesesky is silent with respect to any teaching or suggestion of a control center that utilizes both a check sum and vehicle specific information to determine whether a control program should be rewritten. This is because the communications system 2000 in Lesesky requires no vehicle specific information, as

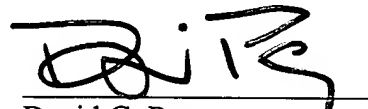
it is a self-contained on-board system. Also, unlike the rewriting device of the present invention, the self-diagnostic means in Lesesky has no rewriting capability, as it is only capable of analyzing signals and deactivating the spread spectrum transceiver 2030 or causing it to send an error message if the self-diagnostic means determines that a subsystem 100 or transceiver 2010, 2015 is defective. (See col. 20, lines 9-29.)

Therefore, as the combination of Schmitz and Lesesky is deficient for the above noted reasons, a *prima facie* case of obviousness has not been established, and it is respectfully requested that the Examiner's rejection of claim 35, as well as claim 43 that depends therefrom, under 35 USC 103(a) be withdrawn.

In view of the above remarks, Applicants assert that the present application is now in condition for allowance, and respectfully requests a Notice to that effect.

Please charge any necessary fees to Deposit Account No. 50-1147.

Respectfully submitted,



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